

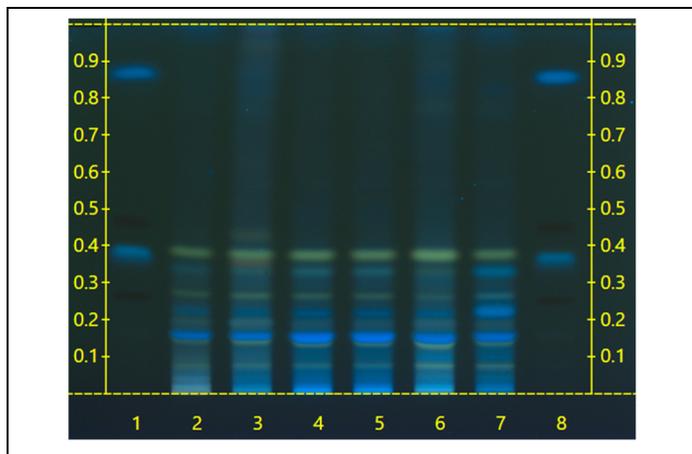
Certificate Issued To:
Mountain Rose Herbs
12661 Hoover St
Garden Grove, CA 92841
USA



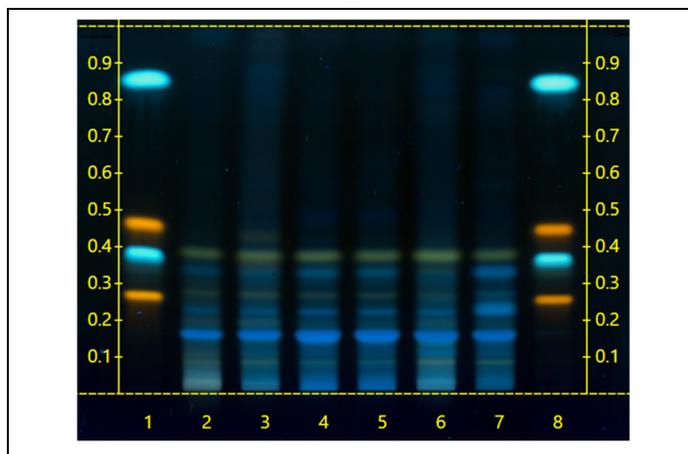
Work performed at:
Alkemist Labs
12661 Hoover Street
Garden Grove, CA 92841
714-754-HERB (4372)
714-668-9972 (FAX)
Sales@Alkemist.com
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Certificate of Analysis: Blue Cohosh Root (26100)
High Performance Thin-Layer Chromatography with Photo-Documentation

1



2



Company Name: Mountain Rose Herbs
Title: Blue Cohosh Root
Plant Part: root
Sample Received: 04/28/21
Sample Packaging: Clear Reclosable Plastic Bag
Form of Botanical: cut and sifted
Appearance: Brown cut and sifted root pieces
Source Location: Mountain Rose Herbs
Lot Number: (26100) → Lanes 4(3µl), 5(3µl)
Sample: 21118BPV_2
Latin Name: *Caulophyllum thalictroides* (L.) Michx. [Berberidaceae]
Reference Sample: Lane 2(3µl) (19063QXR), Lane 3(3µl) (PA01107AB) *Caulophyllum thalictroides* (root); Lane 6(3µl) (PA12504BMX), Lane 7(3µl) (19063YYN) *Caulophyllum thalictroides* (root & rhizome); held at Alkemist Labs, Garden Grove, CA.
Analyst: A. Davis, N. Afendikova, M. Edwards, S. Kabbaj, N. Hoang, K. Tran, J. Lopez, J. Mares 154787
Sample Preparation: 0.3g+3mL Methanol, sonicate/heat at 50°C for 30 min.
Stationary Phase: Silica gel 60, HPTLC plates
Mobile Phase: ethyl acetate: Formic Acid: Acetic Acid: Water [10/0.9/0.9/2]
Detection: (1) UV 366 nm
(2) Natural Product + Polyethylene Glycol, 366nm (Reich, E., 2007)
Reference Standard: Lanes 1(2µl) and 8(2µl) Rutin (A0348926, ACR), Hyperoside (28 0702/0, XSYN), Chlorogenic Acid (89629608, SigAl), Caffeic acid (03, XSYN), Methanol (0000255740, VWR)
Reference Source: Plant Drug Analysis, Wagner, H., 1996
IDT-SOP-72-01

Comments & Conclusions: Lanes 4, 5 are the test sample Blue Cohosh Root (26100). Lanes 2, 3, 6, 7, are the reference samples used for comparison. This test sample, Blue Cohosh Root (26100) is consistent with the chromatographic profile of the reference samples of *Caulophyllum thalictroides*, used above. **This test sample Blue Cohosh Root (26100) has characteristics of *Caulophyllum thalictroides* root.**

NOTE: The above conclusion may be a function of the natural variance found in botanicals &/or the extraction process used to create specific extracts. The growing and drying conditions, age, seasonal variations, geographic location, extraction solvents, etc. all play a role in the phytochemical fingerprint of botanicals as well as their extracts; hence, chromatographic variations are expected.

Examined, Reviewed & Authorized by: Khanh N Tran, HPTLC, R&D Supervisor, Alkemist Labs

Report Date: 05/05/21

ISO/IEC 17025



Note: Any unidentified lanes in the above chromatograms are confidential and may represent internal studies or other test samples not related to 26100. This report applies to the sample investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. This report is for the exclusive use of the party who requested the report and not for public dissemination or use by third parties, including for promotional purposes, without the prior written permission of Alkemist Labs, Inc. This report provides technical results for a specific sample and the report shall not be altered, modified, supplemented or abstracted in any manner. Any violation of these conditions renders the report and its results void. © 2021 Alkemist Labs, Inc. All Rights Reserved